

IN THE ABSTRACT OF THE DISCLOSURE:

Please substitute the attached Abstract of the Disclosure for the Abstract of the Disclosure currently on file.



SUBSTITUTE ABSTRACT OF THE DISCLOSURE

An optical transmitter-receiver is provided which is suitable for a high-speed optical communication system. A high-frequency electric line on a mounting substrate becomes a traveling-wave electrode of a semiconductor optical element equivalently by the following steps: separately manufacturing the mounting substrate having the high-frequency electric line, and the semiconductor optical element for which high-frequency design has been applied beforehand; and then bonding and mounting of drive electrodes of the mounting substrate and the semiconductor optical element through a soldering material. In addition, it is also possible to have a configuration in which not only junction down mounting of high-frequency semiconductor optical elements, but also that of an electronic element for electrically driving and controlling a light source such as a semiconductor laser and for electrically driving and controlling a high-frequency semiconductor optical element, is performed on the mounting substrate.